

Comments on Russian Reports

1. The extract from the article by Parin contains nothing new. The statement concerning the measurement of cosmic rays and solar radiation raises the question as to whether the Russians were able in Sputnik II to measure quantitatively and qualitatively the radiation spectrum. The inference is that they were able to do so. Statements contained in the abstract are quite general in nature and do not add to our knowledge. Investigative techniques are not described. The report certainly indicates accomplishments beyond our own in rocketry. The Russians skills in physiological research are certainly well known and cannot be underestimated, although these and other reports do not indicate biological or physiological techniques beyond our own capabilities. They are ahead in accomplishing the fact.

With respect to the two articles by Fedorov, no new biological information is offered. I believe that the method for taking high altitude air samples is different and results in samples which are more realistic. The article published in PRIRODA, 1957 (on Page 6 of this report) contains the following significant statement: "The first artificial satellite will be launched in the Soviet Union during the IGY." This appears to be an advance notice that the Soviets had been working vigorously in space research areas. The general tone of both articles is that the Russians are thinking logically and vigorously about advanced problems in space technology.

The experiments described in the article by Blagonravov have been reviewed previously and, therefore, contained no new biomedical data. The last page (9) of this article discloses the direction of future efforts in Soviet space research, including those aimed at sustaining man in space.

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1. Parin's article has less information than is found in the official USSR release to Dr. Nicolet. (see Nat. Acad. Sci. Memo TT-21, June 10, 1958) Neither have any really useful new information.
2. Blagonravov's article indicates a lack of closed breathing systems for space suits as has been developed at WADC.
3. If account is factual, it indicates that the Soviets had no regenerative CO₂ or water absorbers since these could reduce the weight required by their chemical O₂ supply system.

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